

THERE IS CLAIMED:

1. A satellite, in particular a telecommunication satellite, intended to be placed in a geostationary orbit, and comprising a structure having a north face and a south face oriented perpendicularly to the rotation axis of the Earth and an east face and a west face that are periodically exposed to solar radiation as the satellite orbits the Earth, said structure supporting equipment dissipating heat, the north, south, east and west faces constituting radiator panels that radiate into space heat dissipated by the equipment, and said satellite comprising at least one shelf to support said equipment and heat transfer means for transferring heat dissipated by said equipment to said north, south, east and west radiator panels.
2. The satellite claimed in claim 1 wherein said heat transfer means comprise at least one capillary pumped two-phase fluid loop.
3. The satellite claimed in claim 2 wherein said fluid loop comprises at least one evaporator having an inlet and an outlet for a heat exchange fluid thermally connected to said equipment supported by said shelf, and a heat exchange fluid circulation branch having one end connected to said inlet and one end connected to said outlet of said evaporator associated with each of said north, south, east and west faces, each branch comprising a heat exchange fluid condenser thermally connected to the face with which said branch is associated.
4. The satellite claimed in claim 3 wherein each heat exchange fluid circulation branch comprises an isolator at the outlet of its condenser to block uncondensed vapor.
5. The satellite claimed in claim 1 wherein said shelf is parallel to a face of said structure facing the Earth.
6. The satellite claimed in claim 2 comprising a plurality of shelves for supporting equipment and a fluid loop for each shelf.